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EXAMINER

KNABLE, GEOFFREY L

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1747

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,148	Applicant(s) LACAGNINA ET AL.	
	Examiner Geoffrey L. Knable	Art Unit 1747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30,32,35-44 and 46-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30,32,35-44 and 46-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/7/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 35 has been amended to define that the step of assembling the belt is carried out “during” said radial expansion step and simultaneously with the mutual junction step. The original disclosure does not however describe such a process, this being therefore subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is new matter. In particular, claim 30 as amended requires a step of "radially expanding the expandable support to mutually join the belt structure to said at least one underbelt insert." This claim is therefore restricted to the figs. 1-6 embodiment since this is the only embodiment in which radially expanding the expandable support functions to mutually join the belt and underbelt inserts (as illustrated in figs. 3-4). In this embodiment, there is no originally described step of assembling the belt on the auxiliary drum that is carried out “during said radial expansion step and simultaneously with the mutual junction step”. Note especially that the step of assembling the belt on the auxiliary drum (fig. 2) occurs before the radial expansion step (fig. 4). Although claim 30

is not read to be consistent with this, the second embodiment also does not support the newly claimed assembling of the belt "during" the radial expansion step.

It is noted that claim 35 as previously presented seemed to have been intended to be directed to the figs. 7-10 embodiment but as noted in the last office action, was inconsistent with the claim 31 requirement for radially expanding the support *to mutually join the belt and insert* (this step again being only consistent with the figs. 1-6 embodiment). Since the claim 31 requirement is now present in claim 30, the previous issue is still present and is further confused with the change of "after" to "during" - note also the 35 USC 112, second paragraph rejection below on this issue.

3. Claims 32, 35-38, 41 and 46-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 32 and 35-38 depend from cancelled claim 31.

In claim 41, line 3 is awkward and confusing - it seems wording such as "to" was omitted after "assembled".

Claims 46-58 each depend directly or indirectly from cancelled claim 45.

Claim 35 requires that the step of assembling the belt structure on the auxiliary drum is carried out "during said radial expansion step and simultaneously with the mutual junction step". As noted above, however, this is inconsistent with claim 30 (as well as the original disclosure), this creating an ambiguity. In particular, claim 30 as amended defines that the radial expansion step joins the belt to the underbelt insert. As such, the belt structure would seemingly have to have already been assembled, this

Art Unit: 1747

being inconsistent with the claim 35 requirement defining that the assembling of the belt is during the radial expansion step. Further, it is not clear how the belt could be assembled during radial expansion (the original disclosure only describing embodiments in which the assembling of the belt would occur before or after the expansion, it being again emphasized that claim 30 as amended is not read to be generic to the figs. 7-10 embodiment since the radial expansion step does not function to join the belt and underbelt inserts in this embodiment). Clarification is required of this inconsistency. As noted above, claim 35 as previously presented seemed to have been intended to be directed to the figs. 7-10 embodiment but as noted in the last office action, was inconsistent with the claim 31 requirement for radially expanding the support to mutually join the belt and insert (this step again being only consistent with the figs. 1-6 embodiment). Since the claim 31 requirement is now present in claim 30, claim 30 is no longer read to be generic to both embodiments and therefore, in addition to the new confusion with the reference to assembling "during" radial expansion, the apparent inconsistency of claim 35 with claim 30(31) remains.

4. Claims 44, 50, 53 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Takagi (US 2002/0153083).

Takagi is applied to the noted claims for substantially the same reasons as set forth in the last office action. The added language to the end of claim 44 is from claim 45 and therefore to address this language, Takagi is applied for the same reasons as previously set forth with respect to claim 45. The specific shape of the underbelt insert added to claim 44 relates to the material worked on and does not further distinguish the

Takagi apparatus. In particular, the reel (71) from which the belt cushion is supplied would have been capable of supplying any desired cross-section. Likewise, the primary drum is fully capable of supporting a carcass with sidewalls applied thereto, this relating to intended use of the claimed apparatus. In any event, it is noted that sidewalls (79) are also taught by Takagi to be applied to the carcass supported on a primary drum (75).

5. Claims 44, 51, 53 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyanaga et al. (US 5,248,357).

Miyanaga et al. is applied to the noted claims for substantially the same reasons as set forth in the last office action. The added language to the end of claim 44 is from claim 45 and therefore to address this language, Miyanaga et al. is applied for the same reasons as previously set forth with respect to claim 45. The specific shape of the underbelt insert added to claim 44 relates to the material worked on and does not further distinguish the Takagi apparatus. Further, and in any event, the underbelt insert of Miyanaga et al. is tapered as claimed (e.g. fig. 4). Likewise, the primary drum is fully capable of supporting a carcass with sidewalls applied thereto, this relating to intended use of the claimed apparatus. In any event, it is noted that sidewalls (5) are also taught by Miyanaga et al. to be applied to the carcass supported on a primary drum (fig. 6).

6. Claims 30, 35-39, 42, 44, 50, 51-54 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Goodfellow (US 4,555,287).

Goodfellow is applied to the noted claims for substantially the same reasons as set forth in the last office action. The added language to the end of claim 30 includes

Art Unit: 1747

the substance of previous claims 31, 33 and 34 while the added language to the end of claim 44 is from claim 45 and therefore to address this language, Goodfellow is applied for the same reasons as previously set forth with respect to these dependent claims. As to the tapered axially internal and axially external portions of the insert, Goodfellow illustrates tapered axially internal and external portions - e.g. note the shape of the insert in fig. 13. Further, an angular rotation is imposed on the insert with radial expansion such that the axially internal portion (77) would engage and therefore be parallel to the belt (the breaker/belt 75 was omitted from figs. 13+ only for clarity - note col. 4, lines 40-41) while the axially external portion would taper toward the axis - e.g. note rotation from the fig. 13 to fig. 14 orientations. Further, in the Goodfellow method, a pair of sidewalls are laterally applied to opposite sides of the carcass (e.g. fig. 7) as required by claim 30 and further, the primary drum that supports the shaped carcass (in fig. 7) is also therefore fully capable of supporting a carcass with sidewalls applied thereto as required by this intended use recitation in apparatus claim 44.

7. Claims 46 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi (US 2002/0153083) as applied above, and further in view of Mitsuhashi et al. (US 6,576,077) as applied in the last office action.

8. Claims 32, 40, 43, 46 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodfellow (US 4,555,287) as applied above, and further in view of Mitsuhashi et al. (US 6,576,077).

As to claims 32, 40, 46 and 55, Mitsuhashi et al. is applied for the same reasons as set forth in the last office action. As to claim 43, Goodfellow describes that the

Art Unit: 1747

carcass is assembled at a separate location (e.g. col. 1, lines 36-50) but does not detail this operation. Winding the carcass ply on a drum is however a well known, typical and obvious manner of assembling a tire carcass - Mitsuhashi et al. is merely exemplary (col. 5, lines 37-38).

9. Claims 46 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyanaga et al. (US 5,248,357) as applied above, and further in view of Mitsuhashi et al. (US 6,576,077) as applied in the last office action.

10. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi (US 2002/0153083) or Goodfellow (US 4,555,287) or Miyanaga et al. (US 5,248,357) as applied to claim 53 above, and further in view of the admitted state of the prior art as applied in the last office action.

11. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi (US 2002/0153083) or Miyanaga et al. (US 5,248,357) taken in view of the admitted state of the prior art as applied above, and further in view of Mitsuhashi et al. (US 6,576,077) as applied in the last office action.

12. Claims 41 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodfellow (US 4,555,287) taken in view of the admitted state of the prior art as applied above, and further in view of Mitsuhashi et al. (US 6,576,077) as applied in the last office action.

13. Claims 30, 44, 47, 48 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holroyd et al. (US 4,738,738) taken in view of Holroyd et al. (US 5,201,975) and Sumner (US 4,561,927).

These references are applied to the noted claims for substantially the same reasons as set forth in the last office action. The added language to the end of claim 30 includes the substance of previous claims 31, 33 and 34 while the added language to the end of claim 44 is from claim 45 and therefore to address this language, Holroyd et al. '738 is applied for the same reasons as previously set forth with respect to these dependent claims. As to the tapered axially internal and axially external portions of the insert, Holroyd et al. '738 illustrates tapered axially internal and external portions - note the shape of the inserts 36 in fig. 8. Further, an angular rotation would be imposed on the inserts with radial expansion of inflatable bag (10) to press the inserts against the belt and shoulder inserts 34/35 such that the axially internal portion (77) would engage and therefore be parallel to the belt while the axially external portion would taper toward the axis as illustrated in fig. 8. In this regard, it is submitted that the initially flat/cylindrical bladder (10 in fig. 1), as typical for an inflated bladder (e.g. a balloon), would or certainly should adopt a curved configuration when inflated, such being further reasonably required to be able to function to press the tread strip against and into the curved pattern of the mold (col. 4, lines 34-42). This understanding is consistent with the illustrated bladder structure and functioning in the very similar Sumner process - note the figure. Since the bladder would or should change from the flat to curved shape, a rotation consistent with the claim 30 requirement would have been imposed. Further, in the Holroyd et al. '738 method, a pair of sidewalls are laterally applied to opposite sides of the carcass (e.g. fig. 11) as required by claim 30 and further, the primary drum that supports the carcass for building/shaping is capable of supporting a

Art Unit: 1747

carcass with sidewalls applied thereto as required by this intended use recitation in apparatus claim 44.

14. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi (US 2002/0153083) as applied to claim 44 above, and further in view of at least one of [Holroyd et al. (US 4,738,738) and Barber et al. (US 3,143,450)] as applied in the last office action.

15. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi (US 2002/0153083) taken in view of at least one of [Holroyd et al. (US 4,738,738) and Barber et al. (US 3,143,450)] as applied to claim 47 above, and further in view of Sumner (US 4,561,927) as applied in the last office action.

16. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi (US 2002/0153083) or Goodfellow (US 4,555,287) or Miyanaga et al. (US 5,248,357) as applied above, and further in view of Pacciarini et al. (US 4,288,265) as applied in the last office action.

17. Claims 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holroyd et al. (US 4,738,738) taken in view of Holroyd et al. (US 5,201,975) and Sumner (US 4,561,927) as applied above, and further in view of Mitsuhashi et al. (US 6,576,077).

As to claim 43, Holroyd et al. describes that the carcass is assembled separately on a drum (e.g. col. 6, lines 32-40) but does not expressly describe that the carcass ply is wound on the drum. Winding a carcass ply on the drum is however a well known, typical and obvious manner of assembling a tire carcass - Mitsuhashi et al. is merely exemplary (col. 5, lines 37-38).

Art Unit: 1747

18. Applicant's arguments filed 10/26/2010 have been fully considered but they are not persuasive as regards the remaining rejections.

Any 35 USC 112 rejections not repeated have been withdrawn in view of applicant's response. Also, the prior art rejections of the method claims (30+) over Takagi and Miyanaga et al. have been withdrawn in view of the amendments to the claims

As to the remaining rejections, it is argued that Goodfellow does not disclose "wherein a pair of sidewalls, each extending until close to a radially internal edge of the carcass structure, are laterally applied to the carcass structure on opposite sides, and wherein during said step of assembling said belt structure, at least one underbelt insert is associated with said at least one belt layer at a radially internal position." This argument is unpersuasive as in the Goodfellow method, a pair of sidewalls are laterally applied to opposite sides of the carcass (e.g. fig. 7) and an underbelt insert (e.g. "77") is associated with the belt layer during assembling thereof.

With respect to Holroyd et al. '738, it is argued that the joining and angular rotation "is achieved by the "consolidation head" (see reference 7 in figure 1), not the inflatable bag." This argument has been carefully considered but is unpersuasive. The inflatable bag (10) of Holroyd et al. is initially flat/cylindrical and unless somewhat extreme measures are taken, would inflate into a curved shape, it being emphasized that there is no description of maintaining the bag flat when inflated or even how this would be accomplished. In this regard, it is submitted that the initially flat/cylindrical bladder (10 in fig. 1), as typical for an inflated bladder (e.g. a balloon), would or certainly

Art Unit: 1747

should adopt a curved configuration when inflated, such being further reasonably required to be able to provide the required function to press the tread strip against and into the curved pattern of the mold (col. 4, lines 34-42). This understanding is consistent with the illustrated bladder structure and functioning in the very similar Sumner process - note the figure. Since the bladder would or should change from the flat to curved shape, a rotation consistent with the claim 30 requirement would have been imposed as the inserts are pressed against the belt and shoulder pieces 34/35.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/
Primary Examiner, Art Unit 1747

G. Knable
December 28, 2010